

G.S. 150B-21.3A Report for 15A NCAC Subchapter 02U, RECLAIMED WATER

Agency - Environmental Management Commission

Comment Period - 3/17/14-5/21/14

Date Submitted to APO - October 20, 2014

Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Implements or Conforms to Federal Regulation [150B-21.3A(d1)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]	RRC Determination of Public Comments [150B-21.3A(c)(2)]	RRC Final Determination of Status of Rule for Report to APO [150B-21.3A(c)(2)]	OAH Next Steps
SECTION .0100 - GENERAL REQUIREMENTS	15A NCAC 02U .0101	PURPOSE	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0102	SCOPE	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0103	DEFINITIONS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0104	ACTIVITIES WHICH REQUIRE A PERMIT	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0105	GENERAL REQUIREMENTS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0106	SUBMISSION OF PERMIT APPLICATIONS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0107	STAFF REVIEW AND PERMIT PREPARATION	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0108	FINAL ACTION ON PERMIT APPLICATIONS TO THE DIVISION	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0109	PERMIT RENEWALS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0110	MODIFICATION AND REVOCATION OF PERMITS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0111	CONDITIONS FOR ISSUING GENERAL PERMITS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0112	DELEGATION OF AUTHORITY	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0113	PERMITTING BY REGULATION (see s.L. 2011-48)	Eff. June 18, 2011 (See S.L. 2011-48)	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0114	WASTEWATER DESIGN FLOW RATES	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0115	OPERATIONAL AGREEMENTS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0116	CERTIFICATION OF COMPLETION	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0117	TREATMENT FACILITY OPERATION AND MAINTENANCE	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0120	HISTORICAL CONSIDERATION IN PERMIT APPROVAL	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .0200 - APPLICATION REQUIREMENTS	15A NCAC 02U .0201	APPLICATION SUBMITTAL – CONJUNCTIVE SYSTEMS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0202	APPLICATION SUBMITTAL – NON-CONJUNCTIVE SYSTEMS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	Yes	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .0300 - EFFLUENT STANDARDS	15A NCAC 02U .0301	RECLAIMED WATER EFFLUENT STANDARDS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .0401 - DESIGN STANDARDS	15A NCAC 02U .0401	DESIGN CRITERIA FOR WASTEWATER TREATMENT FACILITIES - CONJUNCTIVE SYSTEMS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0402	DESIGN CRITERIA FOR WASTEWATER TREATMENT FACILITIES – NON-CONJUNCTIVE SYSTEMS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt

G.S. 150B-21.3A Report for 15A NCAC Subchapter 02U, RECLAIMED WATER

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Rule Section	Rule Citation	Rule Name	Date and Last Agency Action on the Rule	Agency Determination [150B-21.3A(c)(1)a]	Implements or Conforms to Federal Regulation [150B-21.3A(d1)]	Federal Regulation Citation	Public Comment Received [150B-21.3A(c)(1)]	Agency Determination Following Public Comment [150B-21.3A(c)(1)]	RRC Determination of Public Comments [150B-21.3A(c)(2)]	RRC Final Determination of Status of Rule for Report to APO [150B-21.3A(c)(2)]	OAH Next Steps
	15A NCAC 02U .0403	DESIGN CRITERIA FOR DISTRIBUTION LINES (See s.i. 2011-218)	Eff. June 18, 2011 (S.L. 2011-218)	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .0500 - GENERAL UTILIZATION REQUIREMENTS	15A NCAC 02U .0501	RECLAIMED WATER UTILIZATION (see s.i. 2011-48)	Eff. June 18, 2011 (S.L. 2011-48)	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	Yes	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .0600 - BULK DISTRIBUTION OF RECLAIMED WATER	15A NCAC 02U .0601	BULK DISTRIBUTION OF RECLAIMED WATER	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .0700 - SETBACKS	15A NCAC 02U .0701	SETBACKS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .0800 - OPERATIONAL PLANS	15A NCAC 02U .0801	OPERATION AND MAINTENANCE PLAN	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
	15A NCAC 02U .0802	RESIDUALS MANAGEMENT PLAN	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .0900 - LOCAL PROGRAM APPROVAL	15A NCAC 02U .0901	LOCAL PROGRAM APPROVAL	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .1100 - WETLANDS AUGMENTATION	15A NCAC 02U .1101	WETLANDS AUGMENTATION	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	Yes	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt
SECTION .1400 - IRRIGATION TO FOOD CHAIN CROPS	15A NCAC 02U .1401	IRRIGATION TO FOOD CHAIN CROPS	Eff. June 18, 2011	Necessary with substantive public interest	Yes If yes, include the citation to the federal law	CWA Sec 102(a)	No	Necessary with substantive public interest	RRC not required to review comment(s)	Necessary with substantive public interest and must be readopted	Agency must readopt



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September 11, 2014

TO: RULES REVIEW COMMISSION
FROM: Benne Hutson, Chair, Environmental Management Commission
RE: Periodic Review of Existing Rules

The Environmental Management Commission (EMC) has conducted its periodic review of existing rules required by SL 2013-413 for the following subchapters:

15A NCAC 02B
15A NCAC 02H
15A NCAC 02T
15A NCAC 02U

The EMC proposed an initial classification of "necessary with substantive public interest" for all of the rules contained in these subchapters. During the public comment period, 871 comments/other statements were received. Approximately 50 were considered "public comment" as defined in G.S. 150B-21.3A(a)(5). The EMC acted to keep the determinations as "necessary with substantive public interest" as the final agency determination at its regular meeting on September 11, 2014. The following response will apply, that the EMC will consider and/or address all comments during the rule re-adoption process. The report for the Rules Review Commission is attached. Copies of all of the comments and other statements received are also attached. The comments/statements are also available electronically via today's agenda on the EMC's webpage (<http://portal.ncdenr.org/web/emc/agenda/2014/home>).

Attachments:
Subchapter Reports
The Comments/Statements
Forms 0800

15A NCAC 02U Comments

Rule	Rule Name	Commenter Name	Affiliation	Do you agree with the Agency's determination?	Do you want to comment on this rule?	Comment	Attachment
15A NCAC 02U .0101	PURPOSE	Don Safrit	Secure Resources, PLLC	Yes.	Yes, A different type of comment.	See attached comments for broader consideration as the comments relate to the NC water reuse program.	Don Safrit Attachment
15A NCAC 02U .0101	PURPOSE	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0101	PURPOSE	Cassie Gavin	NC Chapter Sierra Club	Yes.	Yes, A different type of comment.		Cassie Gavin Attachment
15A NCAC 02U .0102	SCOPE	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0102	SCOPE	Susan White	WRRRI	Yes.	Yes, A different type of comment.	A framework for potable water reuse should be developed. In that process, one may want to consider what we should define as a potable reuse situation. For example, is the unintended indirect potable reuse we currently practice acceptable if a utility located downstream of a wastewater treatment plant has to treat water that is >x% (insert number here) wastewater at a given stream flow (7Q10, median, etc.).	
15A NCAC 02U .0103	DEFINITIONS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0104	ACTIVITIES WHICH REQUIRE A PERMIT	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0105	GENERAL REQUIREMENTS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0106	SUBMISSION OF PERMIT APPLICATIONS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	

15A NCAC 02U Comments

Rule	Rule Name	Commenter Name	Affiliation	Do you agree with the Agency's determination?	Do you want to comment on this rule?	Comment	Attachment
15A NCAC 02U .0107	STAFF REVIEW AND PERMIT PREPARATION	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0108	FINAL ACTION ON PERMIT APPLICATIONS TO THE DIVISION	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0109	PERMIT RENEWALS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0110	MODIFICATION AND REVOCATION OF PERMITS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0111	CONDITIONS FOR ISSUING GENERAL PERMITS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0112	DELEGATION OF AUTHORITY	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0113	PERMITTING BY REGULATION (see s.L. 2011-48)	Don Safrit	Secure Resources, PLLC	Yes.	Yes, A different type of comment.	I believe that broader categories for permitting by regulation should be considered.	
15A NCAC 02U .0113	PERMITTING BY REGULATION (see s.L. 2011-48)	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0114	WASTEWATER DESIGN FLOW RATES	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0116	CERTIFICATION OF COMPLETION	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	

15A NCAC 02U Comments

Rule	Rule Name	Commenter Name	Affiliation	Do you agree with the Agency's determination?	Do you want to comment on this rule?	Comment	Attachment
15A NCAC 02U .0117	TREATMENT FACILITY OPERATION AND MAINTENANCE	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0120	HISTORICAL CONSIDERATION IN PERMIT APPROVAL	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0201	APPLICATION SUBMITTAL CONJUNCTIVE SYSTEMS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0202	APPLICATION SUBMITTAL NON-CONJUNCTIVE SYSTEMS	Don Safrit	Secure Resources, PLLC	Yes.	Yes, Objection to the rule in whole or in part.	I believe that sites receiving reclaimed water from Non-Conjunctive sources should have no greater permitting requirements than those using reclaimed water from conjunctive systems. NC is the only state in the US utilizing this approach.	
15A NCAC 02U .0202	APPLICATION SUBMITTAL NON-CONJUNCTIVE SYSTEMS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0301	RECLAIMED WATER EFFLUENT STANDARDS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0401	DESIGN CRITERIA FOR WASTEWATER TREATMENT FACILITIES -	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0402	DESIGN CRITERIA FOR WASTEWATER TREATMENT FACILITIES ? NON-	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0403	DESIGN CRITERIA FOR DISTRIBUTION LINES (See s.l. 2011-218)	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0501	RECLAIMED WATER UTILIZATION (see s.l. 2011-48)	Don Safrit	Secure Resources, PLLC	Yes.	Yes, Objection to the rule in whole or in part.	(e) - prohibition of reclaimed water for potable water supply. I believe there should be some clarification to allow reclaimed water for potable use (direct or indirect) under certain circumstances.	

15A NCAC 02U Comments

Rule	Rule Name	Commenter Name	Affiliation	Do you agree with the Agency's determination?	Do you want to comment on this rule?	Comment	Attachment
15A NCAC 02U .0501	RECLAIMED WATER UTILIZATION (see s.l. 2011-48)	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0601	BULK DISTRIBUTION OF RECLAIMED WATER	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0701	SETBACKS	Don Safrit	Secure Resources, PLLC	Yes.	Yes, A different type of comment.	Setbacks should be based upon sound science and comparison with the USEPA Guidelines for Water Reuse and comparison with setbacks of other states.	
15A NCAC 02U .0701	SETBACKS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0801	OPERATION AND MAINTENANCE PLAN	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0802	RESIDUALS MANAGEMENT PLAN	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .0901	LOCAL PROGRAM APPROVAL	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .1101	WETLANDS AUGMENTATION	Don Safrit	Secure Resources, PLLC	Yes.	Yes, Objection to the rule in whole or in part.	(a)(3) depth to groundwater required to be one foot. This requirement is not practical and not in accordance with recommendations from USEPA or other states' reuse programs. Reclaimed water augmentation to free water surface wetlands should be allowed as other state programs allow. Coverage under a general NPDES permit would be acceptable if other states require such for free water wetland augmentation	
15A NCAC 02U .1101	WETLANDS AUGMENTATION	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	
15A NCAC 02U .1401	IRRIGATION TO FOOD CHAIN CROPS	Paul Calamita	NC Water Quality Association	Yes.	Yes, A different type of comment.	NCWQA will submit detailed recommended revisions to the regulations under review in a separate comment letter.	

May 13, 2014

DENR Rule Comments
1601 Mail Service Center
Raleigh, NC 27699

*Submitted via the DENR Periodic Review and Expiration of Existing Rules website at:
<http://www.ncwater.org/rules-review/> and email*

Re: Comments on DENR proposed classifications of water quality and wetland rules for the rules review process required by Session Law 2013-413

To: NC Department of Environment and Natural Resources,

These comments are being submitted in response to the DENR's proposed classification of water quality and wetland rules for purposes of the rule review required under Session Law 2013-413. The law requires the EMC to determine whether the rules under review should be classified as:

- 1) Necessary with substantive public interest;
- 2) Necessary without substantive public interest; or
- 3) Unnecessary.

The EMC has submitted reports classifying rules in Title 15A, Subchapters 2B, 2H, 2T and 2U of the North Carolina Administrative Code in these three categories. It is our understanding that the 60-day comment period now underway invites public comment on the proposed classification of the rules. Although rule objections may be relevant to concluding that a rule has substantive public interest (which requires re-adoption of the rule), we reserve the right to comment further on the substance of the rules in response to the formal public notice required for re-adoption. As requested by the Rules Review Commission, the EMC reports also indicate whether a rule implements or conforms to a federal statute or rule. We appreciate your consideration of these comments on the EMC reports.

First, we would like to note some general comments. In an earlier letter, we encouraged the EMC to reconsider the decision to put all of the water quality and wetland rules through review and re-adoption without regard to how recently those rules have been adopted. Session Law 2013-413 does not require review of rules adopted or amended within the last ten years. A number of large, complex water quality rule sets have been adopted in the last five years. The workload associated with reviewing those rules will put an unreasonable and unnecessary burden on the EMC and on DENR staff. It will be difficult to do a thoughtful rule review and the volume of rule review activity will also make it difficult for the water quality program to meet its other responsibilities under state and federal law.

Many of the water quality rules also represent comprehensive strategies to address an existing water quality problem. The rule classification process underway now should not be used to identify an individual rule as unnecessary when the rule plays a role in a larger water quality strategy. The nutrient management strategies in particular have been carefully constructed to achieve pollution reductions from all major sources contributing to water quality impairment.

Those rule sets must be reviewed as a whole to insure that the rules continue to meet the Clean Water Act mandate for pollution reductions necessary to achieve water quality standards.

We would also offer more specific comments on the four subchapters:

Subchapter 2B (Surface Water and Wetland Standards): We agree that all of the rules in Subchapter 2B are necessary and have substantive public interest. It is important to note that many of these rules – including all of the standards for nutrient sensitive water bodies – are required to satisfy the Clean Water Act’s requirement that the State must reduce the discharge of pollutants contributing to impaired water quality.

Subchapter 2H (Procedures for Permits and Approvals): Again, we agree that all of the Subchapter 2H rules are necessary and have substantive public interest. The EMC has identified a few of the rules as not implementing or conforming to federal regulations. That determination may be significant for several reasons. Under S.L. 2013-413, failure to review a rule can cause the rule to automatically expire – unless the rule implements or conforms to a federal statute or rule. The relationship between state rules and federal regulations may also become significant in the rule re-adoption process given the APA’s restrictions on adoption of environmental rules that go beyond federal standards.

The EMC report identifies 19 of the 22 rules for local wastewater pretreatment programs as implementing or conforming to federal regulations. While it may be correct that three of the state pretreatment rules are not specifically mandated by federal regulation, the state rules as a whole have been adopted to ensure that local pretreatment programs meet federal requirements. In those circumstances, we think the better course would be to conclude that all of the pretreatment rules implement federal regulations (specifically, that 15A N.C. Admin. Code 02H .0917, .0920, .0922 implement 40 C.F.R. §§ 403.8 and 403.12). Making an overly narrow rule-by-rule decision on the relationship to federal regulations could undermine the overall state pretreatment program. Federal statutes and rules rarely include all of the procedural requirements needed to run a delegated state program. Those additional requirements should still be considered necessary to implement federal regulations.

We are also concerned that the EMC has taken too narrow a view of the relationship between the isolated wetlands rules and implementation of federal regulations. Although isolated wetlands fall outside the scope of the permitting program established in Section 404 of the Clean Water Act, protection of the water quality functions of isolated wetlands has links to other sections of the Clean Water Act that require reduction of pollutant loading to impaired waters and development of plans to reduce nonpoint source pollution. The isolated wetlands rules can also have a role in implementation of other federal laws such as the Endangered Species Act.

Subchapter 2T (Waste Not Discharged to Surface Waters): We agree that all of the Subchapter 2T rules are both necessary and have substantive public interest.

Subchapter 2U (Reclaimed Water): We agree that all of the Subchapter 2U rules are both necessary and have substantive public interest. We also believe the EMC is correct in finding that the reclaimed water rules implement or conform to federal regulation. Some stakeholders

have argued in the past that reclaimed water can be discharged without a Clean Water Act permit. We believe that position reflects a basic misunderstanding of the Clean Water Act and the reclaimed water rules clearly implement federal requirements concerning discharge of wastewater.

Thank you for considering these comments and we look forward to participating in future discussions of the substance of these rules.

Sincerely,

Molly Diggins, State Director
Sierra Club, NC Chapter

Jane Preyer, Director
Environmental Defense Fund, NC Office

Julie Youngman, Senior Attorney
Southern Environmental Law Center

cc: Mr. Benne Hutson, Chair, EMC, Benne.Hutson@gmail.com
Tom Reeder, Division of Water Resources, tom.reeder@ncdenr.gov
Joe DeLuca, Rules Review Commission, joe.deluca@oah.nc.gov



ENGINEERS

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April 26, 2010

Mr. Jon Risgaard, Supervisor
Land Application Unit
Aquifer Protection Section
Division of Water Quality
1636 Mail Service Center
Raleigh, North Carolina 27699-1636

Subject: Reclaimed Water Rule Enhancements
15A NCAC Subchapter 02U – Reclaimed Water

Dear Mr. Risgaard:

Thank you for the opportunity to provide comments on the proposed enhancements to the reclaimed water rules. As you are aware, I have been personally active in the development of these rules for many years. While I was with the Division of Water Quality, I was the lead for development of the water reuse rule language that forms the basis for much of the regulatory language we have in place today. I have been very active with reclaimed water at the state and national level. At the national level, I currently serve on the American Water Works Association's (AWWA) Water Reuse Committee, the Water Environment Federation's (WEF) Water Reuse Committee, and the WaterReuse Association's Regulatory Committee. At the state level, I serve as the current chair of the NC AWWA WEA Water Reuse Committee, a member of the NC Chamber's Environmental Concerns Policy Committee, and a member of Professional Engineers of North Carolina's (PENC) Environmental Committee. In all of these organizations I am actively promoting water reuse and the need for laws and regulations that encourage responsible water reuse. I am also a licensed professional engineer in Virginia, North Carolina, South Carolina, Georgia, and Florida.

The NC AWWA WEA Water Reuse Committee initiated activities for revisions to NC's reuse rules in 2001 or thereabouts. This involved internal committee

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discussions and debates about what type of rule enhancements were appropriate. The committee worked on these ideas for a number of months and the drought of 2002 exemplified the need for a broader, more visionary approach. In January 2005, the NC AWWA WEA submitted the results of our efforts and suggested language to then Secretary Ross for the Department and various Divisions' consideration (copy enclosed). Many of the current concerns of regulated entities can be found to be resolved by the proposal set forth at that time. Rather than go into all the specifics, the principal driver for action by the Division of Water Quality was the drought of 2007 / 2008. The current rules language was not thoroughly vetted (see enclosed letter to Assistant Secretary Smith dated September 2008) and the draft rules were forwarded to the EMC (September 2008). And now, eighteen months or so later, the rules are before the EMC for final action. I, as are many other water professionals, am hopeful that the proposed rules will be modified to address the concerns of those who are tasked with managing our state's valuable water resources in a sustainable manner.

Before elaborating on specific concerns or suggestions for improvements on the proposed rule enhancement, I want to express that I am pleased that action is finally being taken on improving the rules for water reuse in North Carolina. I stand by ready to assist DWQ and the EMC on any comments or suggestions made and I would be happy to participate in any such forum to develop alternative language or strategies to accomplish objectives to provide incentives and remove impediments for water reuse. The following comments / suggestions are offered:

1. Strongly support the approach to make reclaimed water / water reuse considered a resource rather than a waste. Support separation of reclaimed water rules from "wastewater" management rules (2T).
2. Currently, the existing water reuse rules, policies, application forms and permits convey negative messages to the reclaimed water providers, the reclaimed water users, as well as the media and general public. The current water reuse program has too much of a regulatory burden and many interested parties do not see the benefit when all of these regulatory burdens are considered. The water reuse rules should have less of a "grip" and should provide incentives for both generators and users to use reclaimed water as opposed to other water resources.
3. The policies and procedures of DWQ to be less controlling – the permit application is 4 pages of instructions; 15 pages of necessary information; the typical permit is 13 pages long and has approximately 55 conditions. More "permitting by regulation" or even the use of general permits should be used for water reuse activities.
4. The rules and policies should have more incentives and fewer impediments for water reuse. The reuse program needs to be careful of unintended consequences – the public's concern about water reuse if they and the provider have to abide by so many requirements – is reclaimed water a resource or a waste? Perception is often reality for those who are not in the water and wastewater business.

5. The regulations should be of a scientific or technical origin – some requirements may be viewed as “aggressive” by a golf course owner or someone irrigating their residential lawn since some requirements are not risk based and quite often conflicts with the EPA Guidelines for Water Reuse or other progressive water reuse states such as Florida or California. Detailed soil evaluations for residential areas should not be required. NC State’s Soil Extension Office routinely recommends a loading rate of approximately 1 inch per week during the growing season (May – October) for turf grass. This loading rate or perhaps a slightly more conservative rate (0.5 or 0.75 inches per week) would be very reasonable and would help to encourage use of reclaimed water instead of potable water for lawn irrigation.
6. Conjunctive versus Non-Conjunctive. Permitting sites for Non-Conjunctive are significantly more complex and costly – yet these systems may be eliminating discharges of nutrients or other constituents to surface waters. This approach appears to be an unintended negative consequence against the purpose of the CWA and the NPDES program which is supposed to encourage or require elimination of surface water discharges. With more and more restrictions being developed for NPDES facilities (nutrient controls, more stringent stream standards, TMDLs, etc...), there should be programmatic incentives for reuse, not programmatic impediments. The application criteria for Non-Conjunctive systems should be no different than Conjunctive systems.
7. Support the new classification approach for water reuse – Class A and B – but do have some concerns about the nationally precedent setting aspect of microbial monitoring and limits for e. coli, clostridium perfringens and coliphages. The explanations I have heard in the various stakeholder meetings and technical presentations is that the control number for these parameters is somewhere in the magnitude of 10 (see Appendix A for specific subcommittee recommendations). I am not convinced that a limit for these parameters will not cause an immediate compliance issue for some existing reclaimed water systems.
8. Support the new reclaimed water use for the irrigation of food crops. This use is permissible in many other states and is recognized by the EPA Guideline for Water Reuse. North Carolina needs to do more to encourage use of reclaimed water for agricultural purposes since agriculture is a heavy water user and because there is a lot of agriculture located in our state.
9. Support the new reclaimed water use for wetland augmentation. This use is permissible in many other states and is recognized by the EPA Guideline for Water Reuse. I do have concerns that the wetland augmentation approach is too restrictive – many other states as well as the EPA Guidelines for Water Reuse allow free water augmentation (i.e., to wet or water surfaces in wetlands) and the 12-inch vertical separation is too reflective of “wastewater” disposal and conventional groundwater management approaches.
10. Believe that suggested inclusion of surface water augmentation should be addressed – and if necessary, appropriate modifications to the NPDES and Classifications / Standards rules to allow approval of surface water augmentation. There are good opportunities for reclaimed

water to enhance ecological integrity in urban or rural streams that may have been adversely impacted by man's activities. Strict interpretation of current "wastewater discharge" requirements would prohibit discharges into streams with 7Q10 flows of zero yet many of these streams may be on 303d lists or streams with TMDLs.

11. Believe that suggested inclusion of use of reclaimed water for potable reuse should be addressed – and if necessary, appropriate modifications to the NC DENR Division of Environmental Health's Public Water Supply rules to allow approval. I have been surprised at how many utilities and municipalities have expressed interested in potable reuse. No less than a dozen have expressed interest in pursuing potable reuse some time in the future. Many of us are already practicing such indirect potable reuse but many do not realize or acknowledge it. Our state's reclaimed water quality is often better than much of our state's ambient water quality. And our state's reclaimed water is a stable supply and very consistent in quality.
12. Need to move the high rate infiltration rules (2T .0700) into the water reuse rules and recognize it as groundwater recharge rather than disposal. Again, the EPA, Florida, California, and many others recognize aquifer recharge as resource recovery and reuse as opposed to disposal.
13. Need to consider Aquifer Recharge & Recovery (ASRs) in the rules. Dr. David H Moreau, current member of the EMC, has mentioned the need for more storage numerous times in regards to our future water resource management needs in North Carolina and ASRs may be a cost effective option for eastern NC.

Enclosed you will find more specific and detailed comments developed by the NC AWWA WEA Water Reuse Committee (Appendix A). These comments were developed by six separate committees comprised of North Carolina water and wastewater professionals. You may receive comments from some of our committee and organizational members since they were encouraged to provide specific comments or concerns directly to you. Again, please note that I and many others who have participated in this rule development process stand ready to assist DWQ and the EMC on either resolving any comments or concerns as well as development of additional language that may assist preparation of water reuse rules to further our state's sustainability goals for our most important resource – water.

If you should have any questions regarding this letter or any attachments or materials herein, please do not hesitate to contact me at (919)233-8091 (O) or (919)210-9814 (M).

Sincerely,

McKim & Creed, PA

***ORIGINAL SIGNED BY
DONALD L. SAFRIT***

Donald L. Safrit, P.E.
Senior Technical Specialist

Mr. Jon Risgaard

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Enclosures

Appendix A – Detailed Comments from NC AWWA WEA Water Reuse Committee

January 25, 2005 Letter to NC DENR Secretary William Ross

September 12, 2008 Letter to NC DENR Assistant Secretary Robin Smith

APPENDIX A

NC AWWA-WEA Water Reuse Committee Subcommittee Comments / Suggestions for Consideration for the 2010 Water Reuse Rule Enhancements

FRONT END MATERIAL Subcommittee

- A. Promote reclaimed water and reuse as a resource rather than a waste. Staff has incorporated some language as noted by Drought Bill (HB2499). Is okay but believe that more can be said to emphasize this objective.
- B. Purpose / Scope should set the tone for management as a resource – regulatory language should not be so “restrictive” or “burdensome”. Some of the current language is very rigid – origin of language appears to be from strict regulatory management such as leaking underground storage tanks, restricted access wastewater management, or RCRA/CERCLA (Hazardous Waste) programs.
- C. There should be a more robust list of definitions – there is considerable interest in water reuse and it is common for misunderstandings. Terms like gray water, stormwater reuse, rainwater harvesting, distributed, decentralized, satellite, and others should be defined to ensure that the regulated community clearly understands what the proposed rules manage and what they do not. See definitions proposed in language submitted in attached January 25, 2005 letter to Secretary Ross.
- D. There should be specific language that authorizes staff to make broader decisions about water reuse that are in the best interest of sustainable water practices. Too often the current rules, or other water quality program rules, interfere or conflict with good reuse opportunities. The best approach may be in the “Alternative Design Criteria” section but staff should not be limited to just “engineering” aspects but programmatic and policy matters such as alternative setbacks, treatment levels, and uses.

PERFORMANCE ASPECTS Subcommittee

- A. Agree with the approach of placing nutrient limits on specific uses such as wetland augmentation rather than on all Class A waters.
- B. The use of alternate indicator organisms such as *Clostridium perfringens* and coliphage is precedent-setting. Recommend that the log reductions found in Section .0401(i) required for Class A reuse be removed.
 - 1. Measuring log reductions at that level through a treatment plant will be very difficult unless higher than average influent microbial concentrations are present, especially for coliphage. Typical influent total coliphage concentration ranges from 10^4 to 10^6 PFU/100mL; so to show a 5-log removal, effluent concentration would be in the range of 0.1 to 10

PFU/100mL. It is difficult and costly to measure coliphage that has a concentration less than approximately 1 to 10 PFU/100mL.

2. Concentration limits should suffice so that treatment plants would be designed for at least the log inactivation listed in the proposed rules.
- C. Recommend limit of 5 Colony-Forming Units (CFU)/100mL for *E. coli*, since typically samples are grabbed 2 times per month and the detection limit is 1 CFU/100mL. The geometric mean of the maximum day sample of 25 CFU/100mL and the detection limit of 1 CFU/100mL is 5 CFU/100mL.
- D. Recommend requiring monitoring only for *C. perfringens* and coliphage for Class A reuse. A numerical limit for *E. coli* is more on target with other states. When more data is available, a numerical limit for the alternate indicators may be reasonable.
- E. Recommend further review of microbial indicators and limits as additional high level uses of reclaimed water are considered.
- F. Recommend allowing use of Fecal Coliform in place of *E. coli* as long as Fecal Coliform testing is required in NPDES permits. Since *E. coli* is a subset of Fecal Coliform, measurement of Fecal Coliform with the same numerical criteria as *E. coli* will be a conservative measure of compliance.

USES ADDRESSED Subcommittee

- A. Reviewed "Uses" in the proposed 2U Regulations
 1. Section .0500(c)
 - Agree "Fire Protection in Sprinkler Systems" use "shall be approved by the Director"
 - Strongly recommend "urinal and toilet flushing" to be allowed
 2. Section .0500 (e)- *direct reuse*
 - Recommend eliminating this item so as not to prohibit its use in the future.
 3. Section .0601 – *bulk distribution*
 - We understand that staff has recently adopted a policy that removes the 72 hour "shelf-life" of reclaimed water utilized for bulk purposes. We support this decision.
 4. Section .1101 – *wetlands augmentation*
 - Similar uses should be included: Stream Augmentation, ASR, Aquifer Recharge, and Indirect Reuse.
- B. Reviewed changes in "Uses" from Old 2T Rules
 1. "Reason for Proposed Action" paragraph is good.
 2. Quickly reviewed the deletions from the 2T Rules of "tertiary treated wastewater effluent, meeting the standards in Rule .0906, used in a beneficial manner and for purpose of conservation of the states water resources..."
- C. Other comments relative to uses of reclaimed water:

1. Stream augmentation utilizing reclaimed water should be incorporated into the rules and should not be excluded.
2. Field testing requirements, etc.
 - Recommend that the setbacks be consistent for the uses when a conjunctive use permit is in effect, e.g., golf courses spray limits and holding ponds.
 - For Non-conjunctive use permits, it is still a good idea to take the more conservative approach.
3. Direct raw water supply
 - Existing language disallows the use of reclaimed water as a direct raw water supply. We recommend the sentence be struck as this is a Public Water Supply issue.
 - Existing language disallows the use of reclaimed water as a direct raw water supply. For future water resource management, we recommend that both direct and non-direct potable reuse be considered and that language be developed. This may require a separate stakeholders group assigned to work out the issues and assist in development of the rules.
4. Wetlands augmentation
 - The proposed language has recently changed to no longer include pine or hardwood flats. The refinement to limit wetland augmentation to just isolated wetlands is too restrictive and unjustified. EPA Reuse Guidelines as well as those of several other states clearly document the effective use of reclaimed water for stream and wetland augmentation. Wetland augmentation should include pine or hardwood flats plus open water wetland systems.
 - Total Nitrogen (TN) and Total Phosphorus (TP) limits should be based on the assimilative capacity for nutrients of the specific wetland that will receive the reclaimed water and should be based upon the professional opinion of an agronomist or other accredited professional for the specific wetland area to receive the reclaimed water. The nutrient restrictions should be expressed as annual average concentrations rather than monthly average concentrations.
 - We believe that some of the requirements are impractical and unwarranted. These include compliance and review boundaries for groundwater and notification to the public that the wetlands receive reclaimed water.
5. The Proposed Rules submitted to DWQ in 2005 included a matrix listing the two classes of reclaimed water and their suitability for various reclaimed water uses. This matrix could prove very useful to a reclaimed water system. We recommend the matrix be included.

6. The Draft Rules are silent on infiltration systems, which are covered under Section 0700. We recommend that infiltration systems using reclaimed water be incorporated into 2U, and that the specified setbacks associated with those systems be per Section 0701.
7. The Draft Rules do not address using reclaimed water for groundwater recharge. This is addressed in Section 0700. We recommend it be addressed in 2U.
8. The indirect irrigation of Food Chain Crops (by drip irrigation, furrow irrigation or sub-surface irrigation or irrigation below a protective weed barrier) that provides sufficient barrier to prevent contact of the irrigated reclaimed water with the portion of the plant or vegetation that will be directly consumed by humans should only be required to meet Class B standards.

D. Treatment for the Various Uses

- Let's not paint ourselves into a box, such that direct potable reuse will never be allowed.
- Per previous comment, consider a Matrix; maybe add a column for treatment level required for each use.

USES NOT ADDRESSED Subcommittee

There are many reclaimed opportunities that are not addressed in the proposed rules. To give utilities the ability to maximize reuse in a beneficial manner, these uses should be addressed in the rules. For complex projects, the rules should establish the necessary level of effort to be protective of both public health and the environment.

The following is suggested text that addresses the uses not currently covered:

- A. Planned Indirect Potable Reuse – The rules prohibit the “direct reuse as a raw potable water supply”, but they are silent on indirect potable reuse, either planned or unplanned. Unplanned indirect reuse is occurring throughout the State where a utility is discharging wastewater upstream of another utility’s water supply intake. Planned indirect potable reuse involves a utility intentionally discharging reclaimed water upstream of its own water intake. Planned indirect potable reuse should be addressed in the rules. The following text is suggested to be inserted immediately after the discussion of direct potable reuse:

“15A NCAC 02U .0501(f) Reclaimed water shall not be used for planned indirect potable reuse unless scientific studies and risk assessments show it is the only viable option and protective measures are in place to ensure the project is protective of public health and the environment. For the purposes of this rule, planned indirect potable reuse shall mean the discharge or injection of reclaimed water into a natural water body (lake, stream, or groundwater) for the purpose of augmenting that water body for use as a potable water supply. Nothing in this rule shall prevent a wastewater utility from discharging properly treated

wastewater to a receiving stream under the National Pollutant Discharge Elimination System permitting program under 15A NCAC 02H .0100.”

- B. Groundwater Recharge – Groundwater recharge for the purpose of sewage disposal is currently allowed in Section 15A NCAC 02T .0700. However, groundwater recharge for beneficial reuse is not covered. The proposed 02U rules should address groundwater recharge for beneficial uses such as indirect potable reuse and salinity barriers. The following text is suggested to be inserted at the end of the section of Reclaimed Water Uses:

“15A NCAC 02U .0501(g) Reclaimed water may be used for groundwater recharge for beneficial uses such as planned indirect potable reuse and salinity barriers, provided scientific studies and risk assessments show it is the only viable option and protective measures are in place to ensure the project is protective of public health and the environment. Nothing in this rule shall prevent a wastewater utility from disposing of properly treated wastewater through an infiltration gallery as permitted under 15A NCAC 02T .0700.”

- C. Stream Augmentation – Previous drafts of the proposed reclaimed water rules included language for stream augmentation. The many potential benefits of stream augmentation with reclaimed water are not covered under current NPDES regulations, including discharge to low-flow streams. In fact, current policies prohibit discharge to low-flow streams that would be ideally suitable for augmentation. Projects in other states have shown that stream augmentation with reclaimed water is a viable method for improving stream water quality, habitat, and aesthetic value. The following text is suggested to be inserted at the end of the section of Reclaimed Water Uses:

"15A NCAC 02U .0501(h) Reclaimed water shall be allowed for augmentation of streams where discharge accomplishes a benefit such as maintaining stream flow, enhancing aquatic and wildlife habitat, or maintaining aesthetic value of the water course. Benefit to the receiving surface water body shall be demonstrated through the use of appropriate studies and risk assessments. Nothing in this rule shall prevent a wastewater utility from discharging properly treated wastewater to a receiving stream under the National Pollutant Discharge Elimination System permitting program under 15A NCAC 02H .0100."

- D. Aquifer Storage and Recovery – Proposed reclaimed water rules previously provided by NC AWWA-WEA in 2008 included language for Aquifer Storage and Recovery of Reclaimed Water. The current proposed rules are silent on this overall component of the reuse system. This issue is discussed in the updated EPA Guidelines for Water Reuse as a viable option for meeting the variable seasonal storage demands of a reclaimed water system, and uses the example of Hillsborough County, Florida usage of an ASR system to provide 90 million gallon storage volume for its distribution system. (And per the EPA Guidelines, Florida is the only state with regulations or guidelines for ASR from which our group selected permitting language that was used in the 2005 Proposed Rules.) Below is a summary paragraph

of the sample rules provided for ASR in the 2005 Draft, and we propose putting it in the Rules with the Distribution System, Section .0403 as an option to surface storage, since it is part of the storage and distribution system. ASR is not a “use” of reclaimed water, just a means to store it

“15A NCAC 02U .0403(k) In locations where surface storage may be limited, an ASR could be a viable and environmentally sound alternative. ASR is defined as the injection of reclaimed water into a subsurface formation for storage and the recovery of the stored reclaimed water for beneficial purposes at a later date. ASR systems should meet the DWQ’s underground injection control program requirements and obtain construction and operation permits from that program as needed. The reclaimed water recovered from the ASR system shall meet the same performance standard for its intended purpose as the Rules currently address in Section .0301. Reclaimed water shall not be placed directly into or in contact with GA-classified groundwater unless it can be proved to not result in contravention of GA-groundwater standards. An engineering report shall be prepared to address the initial characterization of the groundwater at the point of injection; evaluate the anticipated changes in the characteristics of the reclaimed water during the injection, storage, and recovery phases; evaluate the need for additional treatment or disinfection upon recovery before introduction of the reclaimed water into the reclaimed water system; and include a monitoring plan to verify compliance with the groundwater standards, as well as reclaimed water standards including setbacks.”

INCENTIVES Subcommittee

The Subcommittee was to look at both regulatory incentives as well as disincentives currently included in the water reuse rules – existing or proposed. The following comments are offered:

- A. Many of the specific reuse rules requirements by themselves do not seem that onerous or burdensome, but taken together or as a whole, the requirements start to become “overkill”. Some of this can be traced back to the perspective that reclaimed water is to be regulated as “wastewater” in origin and not as a resource. Some of the aspects are policy-driven as well – requirements for individual permits as opposed to coverage under general permits or even “deemed permitted” status.
- B. Conjunctive versus Non-Conjunctive. There is a tremendous regulatory burden for facilities to operate as complete non-discharge facilities as opposed to those discharge facilities that have reuse programs. This seems to be a contradiction in the elimination efforts of the NPDES program. These non-conjunctive requirements are borne of a suspicion that reuse is a way to circumvent “easier” disposal options or that complete non-discharge systems are less reliable or harder to manage systems. Regardless of the basis, more stringent requirements for non-conjunctive reuse systems do not make sense.

- C. Perpetuation that reclaimed water is a public health concern. There is no existing reputable and documented aspect nationwide that reclaimed water used for its stated purpose has caused any public health consequence; yet the rules infer such concern.
- D. Extensive permit application packages and associated permits. Permit applications and associated permits greater than 10 pages in length perpetuate the stigma that reclaimed water is a “waste” rather than a “resource”. There are actually numerous opportunities for DWQ staff to facilitate water reuse at the policy level, but there are numerous cases where stringent requirements have been imposed that are not even addressed in the regulations.
- E. Setbacks – none of the setbacks established for reclaimed water have a scientific or documented basis. No public health or environmental consequences can be documented from zero lot line or structure setbacks. EPA’s Guidelines for Water Reuse and/or other states, such as Florida or California, should be used as a basis for such requirements.
- F. Reclaimed Program Delegation – more incentives must be provided by DWQ to encourage local systems to manage the reclaimed water locally rather than at the state level. Local control in itself is often not justification enough for take on all the permitting, compliance and enforcement responsibilities for what is often just a few end users (compared to their water, wastewater or sedimentation & erosion control programs).

FISCAL NOTE Subcommittee

- A. On Page 3, in the Description of Rule Changes, the Fiscal Note states that there will be no cost impact resulting from the change from fecal coliform to *E. coli*, since one parameter is being replaced with another parameter of similar sampling cost. However, fecal coliform is routinely sampled and enumerated for NPDES permits for freshwater dischargers, and this sample typically serves as the reclaimed water sample as well. There will be additional cost associated with additional lab analysis for *E. coli*, and labs may incur initial capital costs associated with analysis of *E. coli*.
 - 1. The frequency of required sampling is not addressed in the proposed rules. The note uses a sampling frequency of 2 times per week to calculate fiscal impacts, but it appears that this could change in the future. The sampling associated with usage permits is dependent on the number of users, and this is not addressed in the fiscal note.
 - 2. Since *E. coli* is a subset of fecal coliform, we suggest allowing **either** *E. coli* **or** fecal coliform numbers to be reported, with the same numerical criteria for either indicator, especially for Class B uses. Reclaimed water that meets the numerical limits with fecal coliform will meet or exceed the limit for *E. coli* by definition, since the concentration of *E. coli* cannot be greater than the concentration of fecal coliform.
 - 3. We recommend consistency in the choice of indicator organisms between the reclaimed water, land application, and NPDES permits. Either *E. coli*

or Fecal Coliform would be acceptable, but it should be the same organism for the various uses and disposal methods.

- B. On Page 7, Table 1, the estimated reclaimed water utilization of existing municipal programs is listed at 23% of capacity, or 72 MGD. This appears to be a high estimate based on possible usage, not actual, year-round average usage. We suggest clarifying this line in the table.
- C. On Page 8 and subsequent pages, a Net Present Value is computed using a 7% discount rate.
 - 1. The calculation is unclear. We suggest describing the method used to calculate the NPV and including a sample calculation, perhaps in an appendix.
 - 2. We suggest using a 20-year NPV, since 20-year planning periods are typically considered in design of treatment and reclaimed water systems.
- D. On Page 13 and subsequent pages, the cost to upgrade plants is described in dollars per 1000 gallons per day. We suggest using dollars per gallon per day; i.e., instead of \$271 per 1000 gallons, the cost would be described as \$0.27 per gallon.
- E. The costs of wastewater treatment plant upgrades associated with Class A reclaimed water appear to be low. How were the capital costs calculated? The additional treatment required to meet the proposed Class A microbial concentration standards and log removal standards, especially for coliphage and *C. perfringens*, would be more costly than equipment at existing treatment plants.
- F. We support the reporting changes from quarterly to annually for delegated local programs.
- G. On Page 22, the following sentence should be modified: “It should be noted that any upgrade costs are one-time occurrences and are classified as voluntary”. There will be additional operations and maintenance costs associated with the upgraded facility and the design life of an upgraded facility would typically only be 20 years.
- H. On Page 22, the cost for new distribution lines is listed as \$93,588/mile average. We suggest describing the cost as dollars per foot, i.e., \$17.73/foot. Typically, costs are in the range of \$6 per inch-diameter per foot; so, for a 12” pipeline the cost per foot should be on the order of \$75/foot.
- I. On Page 23, the note states that “it is unlikely that any reclaimed water generators would charge a fee for reclaimed water used in food crop irrigation”. We believe that reclaimed water generators would typically charge something less than the cost of potable water in order to recoup some of the cost of treatment and to place a value on reclaimed water.
- J. We believe that there are additional costs associated with reclaimed water. Once the water is treated and distribution lines are brought to a property, the end user may still need to invest in distribution on the property or modifications to ensure proper setbacks for reclaimed water.